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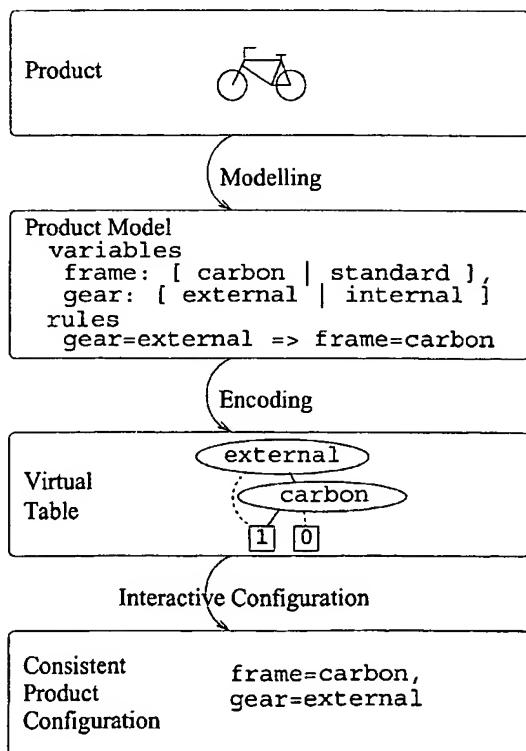
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(54) Title: A METHOD OF CONFIGURING A PRODUCT USING A DIRECTED ACYCLIC GRAPH



(57) Abstract: A complex product is composed of several parts, where each part may depend on the other. As a consequence of these inter-dependencies, the selection of one part might exclude other parts from being included in the finished product. A *consistent configuration* is a selection of parts where all inter-dependencies are satisfied. A computer program for computer-assisted configuration helps an end-user to make choices that will lead to a consistent product. The preferred embodiment of the present invention, *Virtual Tabulation*, is a method for keeping track of inter-dependencies a large number of parts, to allow for the construction of an efficient *and* exact configuration program. Such a program allows interactive configuration over networks (e.g., the Internet). Another aspect of the invention, called *Smart Search*, allows a set of inter-dependencies among parts to be computed from a product database.

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INTERNATIONAL SEARCH REPORT

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ATTARDI G ET AL: "Web-based configuration assistants." AI EDAM ARTIF. INTELL. ENG. DES. ANAL. MANUF., vol. 12, no. 4, September 1998 (1998-09), pages 321-331, XP002902516 CAMBRIDGE UNIV. PRESS (UK) ISSN: irn-issn 0890-0604. the whole document	1-9,25, 26, 32-37, 39-42
A	--- CHAN W ET AL: "MODEL CHECKING LARGE SOFTWARE SPECIFICATIONS" IEEE TRANSACTIONS ON SOFTWARE ENGINEERING, IEEE INC. NEW YORK, US, vol. 24, no. 7, 1 July 1998 (1998-07-01), pages 498-519, XP000781149 ISSN: 0098-5589 the whole document	10-42
A	--- US 5 825 651 A (GUPTA N ET AL) 20 October 1998 (1998-10-20) column 2, line 50 - line 60 column 5, line 67 -column 6, line 6 abstract; figure 5 -----	1-9,25, 26, 32-37, 39-42

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0013113	A	09-03-2000	AU 5369999 A	21-03-2000
			WO 0013113 A1	09-03-2000
			EP 1105821 A1	13-06-2001

US 5825651	A	20-10-1998	AU 731180 B2	22-03-2001
			AU 4236897 A	26-03-1998
			BR 9712795 A	14-12-1999
			EP 0925543 A1	30-06-1999
			JP 2000517450 T	26-12-2000
			NO 990864 A	15-04-1999
			WO 9810360 A1	12-03-1998
			US 6405308 B1	11-06-2002



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